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Windows XP Service Pack 2 Problem Solver

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Suche freiberufliche Tätigkeit als Software-Entwickler

Suchen Sie einen Software-Entwickler mit umfangreichen Erfahrungen für schwierige Aufgaben? Mehr Informationen finden Sie [hier](#).



Ich bin der Autor dieser Webseite und wohne in München (Ottobrunn), arbeite aber weltweit. Bitte senden Sie mir eine [Email](#).

Read this first

General Information

Please do not send email with support requests to me. Such questions should always go to the newsgroup [microsoft.public.windowsxp.network_web](#), where others and I will gladly try to answer them.

Service Pack 2 (SP2) appeared in August 2004. It is an important upgrade and should be installed on all Windows XP computers.

However, due to the general tightening of security, there is the potential that some security measures interfere with special functions you had been using on your computer, and you may have to loosen some security settings accordingly. Given the complexity of some Windows XP installations, there is also always some potential for some other defect to show up.

List of fixes included in Windows XP Service Pack 2
<http://support.microsoft.com/?kbid=811113>

Available disk space is used as follows (LIS = Local Install Source, the install files remain on disk; CAB = files of type .cab, cabinet).

Free disk space	Features
600 MB	Minimum for safe installation

(and safe operation of Windows XP)

< 1.5 GB	No LIS
1.5 .. 2 GB	LIS and used CABs
> 2 GB	LIS and all CABs

A general advice, particularly after changing hardware, is to power everything down, including any routers, cable modems, switches, hubs, and the like, wait 5 seconds, then power them up again. Rebooting without powering down is not enough in some cases.

Your problem may not be related to Service Pack 2 at all. If you have the firewall set up properly, but still have network problems, continue with the [Windows XP Small Network Troubleshooter](#) page.

Microsoft offers free technical telephone support for Service Pack 2. In the US call (800) 936-5700 and press 0 to get to an operator. Ask for technical support on SP2.

This article does not generally cover installations running a third party software firewall. If you want to rely on the information given here, you have to completely uninstall any third party firewall software first.

How to create a slipstream CD

A slipstream CD means a Windows XP installation CD with Service Pack 2 already integrated.

For this you need the full (Network) Service Pack 2 file (266 MB), which can be downloaded from:

<http://www.microsoft.com/downloads/details.aspx?FamilyId=049C9DBE-3B8E-4F30-8245-9E368D3CDB5A>

These articles describe the procedure:

- <http://www.tomshardware.com/howto/20040908/index.html>
- <http://www.neowin.net/forum/?showtopic=188337> (uses helper program AutoStreamer, one of the best ways to do the slipstreaming, available from www.autopatcher.com)
- <http://www.msfn.org/articles.php?action=show&showarticle=49> (uses helper program nLite)

For more descriptions, try:

<http://www.google.com/search?q=%22Windows+XP%22+%22Service+Pack+2%22+slipstream>

Note: You cannot use the /integrate switch to slipstream Windows XP SP2 into a folder with Windows XP on a Windows 2000 computer. Use a Windows XP computer to do the slipstreaming or locate a workaround.

If all else fails

If this entire document doesn't solve your problem, your only remaining choice is to uninstall Service Pack 2 again. At least you gain some peace and more time to look for a better solution.

Click on Start, Control Panel, Add/Remove Software, and make sure that you have Show Updates selected at the top, if you have that choice at all. Then try to remove Service Pack 2 from there.

If that fails, roll back the computer, using System Restore. If that also fails or if you want to know

Ads by Goooooogle

[Service Pack 2 Problems?](#)

2005 Highly-Rated Registry Cleaner Fix Service Pack 2 - Free Download!
www.RegistryFix.com

[Fix Service Pack 2](#)

2005 Highly-Rated Error Remover. Fix Your Computer - Free Download!
PcOnPoint.com

[Windows Problem Solver](#)

PC Bug Doctor Fixes Errors - Fast! Try Free Download Now - Easy to Use
www.PCBugDoctor.com

[Repair Windows - Download](#)

Increase PC Performance and fix Windows registry - 5 Star Rated.
www.pctools.com

[Scan and Fix Corrupt File](#)

Free Scan - Check for Corrupt Files and Fix the Problem Permanently aff
www.ErrorNuker.com

more details, check the next subchapters below for detailed information on how to uninstall the service pack.

If you cannot or don't want to uninstall Service Pack 2, you can perform a repair installation of Windows XP by booting from the original installation CD. First select to install Windows XP, then, after the installer finds your existing installation, choosing the repair installation. Remnants of Service Pack 2 may still cause some problems, warning and error messages in the system event log, but these should go away once you have successfully reinstalled Service Pack 2.

If your computer then works as it did before, you have again gained some time. If it doesn't, or even if it does, but you cannot find any other possible cause, do a repair installation. Boot from the install CD, select to install Windows XP (not to repair it at this time yet), let it detect your current installation, then elect to do a repair installation on the existing installation.

Be careful not to do a fresh installation, for example if the install program does not find your existing installation, unless you want to start from scratch and lose all your installed software and settings. But even then, you will normally at least don't lose your data.

More information: [http://www.google.com/search?q=\"Windows+XP\"+\"repair+installation\"](http://www.google.com/search?q=\)

The repair installation overwrites Service Pack 2 files and may leave your computer with some functions not working and a few error messages repeatedly being logged, so you should then reinstall Service Pack 2.

Links

A Microsoft web site dedicated to Service Pack 2:

Windows XP Service Pack 2 (SP2) Support Center

<http://support.microsoft.com/?pr=windowsxpsp2>

How to use the Automatic Recovery feature to recover your computer if the Windows XP Service Pack 2 Setup program is not completed successfully

<http://support.microsoft.com/?kbid=875355>

Particularly important is this site with links to OEM (Original Equipment Manufacturer) news on Service Pack 2 related issues. Check for your computer's and peripherals' manufacturers:

<http://www.microsoft.com/windowsxp/sp2/oemlinks.mspx>

Device drivers known to cause instability in Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=883775>

Uninstall Service Pack 2

If you have currently unsolvable problems with Service Pack 2, but also have problems uninstalling it, try the command from Start, Run or from a command line window:

```
%windir%\$NtServicePackUninstall$\spuninst\spuninst.exe
```

If that doesn't work, read the following Microsoft Knowledge Base articles.

How to remove Windows XP Service Pack 2 from your computer

<http://support.microsoft.com/?kbid=875350>

How to use the Automatic Recovery feature to recover your computer if the Windows XP Service Pack 2 Setup program is not completed successfully

<http://support.microsoft.com/?kbid=875355>

Can Service Pack 2 be installed on all XP

installations?

eWeek wrote the following on May 11, 2004:

"Recent press reports indicating Windows XP Service Pack 2 will install on pirated or illegal copies of Windows XP are not entirely true," said a Microsoft spokesperson. "Instead, prior to installing, SP2 will check the OS' product ID [PID] against a list of known pirated PIDs. If a PID is found to be invalid, SP2 will not install." This behavior is essentially similar to that of Windows XP SP1.

Another consideration is the following. Service Pack 2 does install on Windows XP OEM versions, i.e. those that came with a computer and are tied to that computer. But if you run into a problem, these OEM versions usually cannot do repair installations. Often they only allow you to erase everything entirely and start from scratch. In other words, with only an OEM install CD, you run the small additional risk, should the SP2 installation go wrong, of either losing your installation and having to start all over or having to buy a full version of Windows XP.

Ordering the service pack on a CD

Windows XP SP2 CD order point:

http://www.microsoft.com/windowsxp/downloads/updates/sp2/cdorder/en_us/default.mspx

Preparing for installation

Service Pack 2 does not require any particular preparation, but it is recommended to take a few precautions nonetheless.

- Upgrade your motherboard to the latest BIOS. Yes, that's crucial in some cases.
- Upgrade the drivers to the latest versions, particularly hard disk controller drivers (RAID, SATA, others), graphics adapter drivers, and USB related drivers, but some other older drivers can also cause problems.
- Check your computer for viruses with a good, freshly updated virus scanner (for example, the free version of AVG from www.grisoft.com).
- However, disable the virus scanner afterwards, before you begin to install SP2. Re-enable it only after SP2 is successfully installed.
- Check for adware, using a newly updated SpyBot from www.spybot.info. If the program finds infections, use a second and a third, different spyware and adware scanner like Ad-Aware from www.lavasoft.de and HijackThis! from www.spywareinfo.com/~merijn. Unfortunately, one spyware scanner is not enough.
- Do a backup. With every big software installation there is always a small risk that the installation gets destroyed.
- Check your hard disk's file system for errors. Right-click on the hard disk in Windows Explorer, select Properties, Tools, Check disk for errors. It cannot hurt to add the surface scan option as well, but it takes longer.
- If you only have the defragmentation tool that comes with Windows, you may want to defragment the disk before and after the service pack installation. If you have a more powerful third party defragmenter (example: PerfectDisk by www.raxco.com), it should be sufficient to defragment after the successful service pack installation. Defragmentation is not required though. It may only improve the disk performance.

Cannot install Windows XP with integrated Service Pack 2

One common reason is that the hardware requires special drivers, but the drivers provided with the

hardware are obsolete and not yet compatible with Service Pack 2. Update them.

Please read the following Microsoft Knowledge Base article.

Windows XP Does Not Respond at "Setup Is Starting Windows XP" Message

<http://support.microsoft.com/?kbid=310760>

If this does not solve the problem, please read the next chapter, "Cannot install Service Pack 2".

Cannot install Service Pack 2

Service Pack 2 is not offered on the Windows Update web site

Please read the following Microsoft Knowledge Base article.

Windows XP Service Pack 2 is not available to install from Windows Update and is not offered by Automatic Updates

<http://support.microsoft.com/?kbid=885627>

Access denied

This can be caused by parts of the registry having insufficient access rights. The following recites a Knowledge Base article that has been removed due to inaccuracies and is provided here as a stopgap measure with notes by my fellow MVP Torgeir Bakken, until a new KB article becomes known.

Knowledge base article 873148 (with some additional notes inline and after):

[Begin of obsolete KB article]

You receive an "Access is denied" error message when you try to install Windows XP Service Pack 2

Important This article contains information about modifying the registry. Before you modify the registry, make sure to back it up and make sure that you understand how to restore the registry if a problem occurs. For information about how to back up, restore, and edit the registry, click the following article number to view the article in the Microsoft Knowledge Base:

256986 Description of the Microsoft Windows Registry

<http://support.microsoft.com/default.aspx?kbid=256986>

SYMPTOMS

When you try to install Microsoft Windows XP Service Pack 2 (SP2), you may experience the following issues:

- You cannot install the service pack.
- You receive the following error message: Service Pack setup has failed. Access Denied
- The Setupapi.log file contains references that indicate that one or more registry keys could not be deleted while the Setup program was running.

CAUSE

These issues may occur when permissions on one or more registry keys are restricted in a way that prevents the administrator who installs the update from updating the registry keys. Failure to update a registry key causes the Setup program to fail.

WORKAROUND

Warning If you use Registry Editor incorrectly, you may cause serious problems that may require you to reinstall your operating system. Microsoft cannot guarantee that you can solve problems

that result from using Registry Editor incorrectly. Use Registry Editor at your own risk. To work around this issue, examine the Svcpack.log file to find the registry keys that are causing this issue, and then modify the registry permissions to give access to the user who is trying to install the service pack. To do this, follow these steps:

1. Make sure that the user who is trying to install the service pack is a member of the Administrators security group.
2. Open the Svcpack.log file. By default, this file is located in the C:\Windows folder.

[Note by Torgeir Bakken:

Svcpack.log is the wrong file to look at, it is Setupapi.log you need to look at.

If you cannot see in setupapi.log at which registry key it fails, you need to enable Verbose logging.

To set the Verbose logging level, you can add a value to the following registry key, using regedit.exe:

```
HKEY_LOCAL_MACHINE
\Software
\Microsoft
\Windows
\CurrentVersion
\Setup
Value Name: LogLevel
Data Type: REG_DWORD
Value (hexadecimal): 0000FFFF
```

When finished, you should set it back to the original, Value (Hexadecimal): 20000000

]

3. Search the log file for references to registry permissions issues. Make a note of the registry keys that are referenced.
4. Click Start, click Run, type regedit, and then click OK to start Registry Editor.
5. Locate and right-click the registry keys that you noted in step 3 of this procedure, and then click Permissions.
6. Examine the permissions that are configured for each user or group. Identify the restricted permissions that are affecting the user who is trying to install the service pack. Make sure the Administrators group has full access configured.

[Note by Torgeir Bakken:

If you have registry issues in a HKEY_CLASSES_ROOT\<some key>, try the method I describe in this link to reset permissions:

<http://groups.google.com/groups?selm=utgOLXRIEHA.3104%40TK2MSFTNGP14.phx.gbl>,

substituting ".AudioCD" with "<some key>".

]

7. Quit Registry Editor.

After you follow these steps, try again to install the service pack.

[End of obsolete KB article]

Using SubInAcl.exe to change the registry permissions is also an alternative:

"Access Denied" error when trying to install SP2

<http://forum.aumha.org/viewtopic.php?t=7796&view=next>

If you cannot see in setupapi.log at which registry key it fails, you need to enable Verbose logging. Please read the next subchapter, Service Pack 2 installation log files, on how to do that.

Alternatively:

In Windows XP Professional it may be better to just reset the security settings back to the defaults for all registry keys, as described in the following Microsoft Knowledge Base article.

How To Reset Security Settings Back to the Defaults

<http://support.microsoft.com/?kbid=313222>

If you only want to reset the registry permissions, add this to the secedit command line:

```
/areas REGKEYS
```

Unfortunately Windows XP Home does not have secedit.

Service Pack 2 installation log files

If the installation of Service Pack 2 does not finish normally, you can check the following log files for cues at what may have gone wrong.

```
%windir%\Svcpack.log  
%windir%\setupapi.log
```

You can replace %windir% with your actual Windows folder, normally: C:\WINDOWS

To set the Verbose logging level, you can add a value to the following registry key, using regedit.exe:

```
HKEY_LOCAL_MACHINE  
  \Software  
    \Microsoft  
      \Windows  
        \CurrentVersion  
          \Setup  
Value Name: LogLevel  
Data Type: REG_DWORD  
Value (Hexadecimal): 0000FFFF
```

When finished, you should set it back to the original, Value (Hexadecimal): 20000000

Cannot copy file

This can be caused by virtual drive software. Try to deactivate such software. If this is not enough, you may have to uninstall it entirely.

Another possible cause is that some version of the offending file is already on the hard disk and cannot be overwritten for one reason or another. (This has been reported, for example, for the file branches.inf.) A way to get around this problem is to rename the old file on your hard disk. You can do this even while you still have the error message on your screen. Find and rename the file on your disk, then click on the Retry button in the error message dialog box.

If renaming fails at first, because the file on the disk is read-only, removing the read-only attribute may already cure the problem.

Cryptographic service and related errors

Some of the possible error messages are:

- Cryptographic service error
- Error 0x800710D9 Unable to read from or write to the database

The quickest and most thorough way to solve this problem is a batch file, written by fellow MVP Torgeir Bakken from Norway. Reboot the computer and, before running any other program, run the batch file. It will tell you when it is finished. Here it is: [fixdb.bat](#)

For other possible solutions check <http://www.updatexp.com/cryptographic-service.html> and the following Microsoft Knowledge Base article for details.

You cannot install some updates or programs
<http://support.microsoft.com/?kbid=822798>

The most successful workaround for the cryptographic service error has been the method 3 mentioned in that article:

Rename the Catroot2 folder, and then try to install the program again. To rename the Catroot2 folder, follow these steps:

1. Click Start, and then click Run.
2. In the Open box, type cmd, and then click OK.
3. At the command prompt, type the following commands, pressing ENTER after each line:

```
net stop cryptsvc
ren %systemroot%\System32\Catroot2 catroot2old
net start cryptsvc
exit
```

Important: Do not rename the Catroot folder. The Catroot2 folder is automatically recreated by Windows, but the Catroot folder is not recreated if it is renamed.

For the "Error 0x800710D9 Unable to read from or write to the database" you would need to delete or rename the %systemroot%\Security*.log files as well (rename them to e.g. *.log.old).

Adware interferes

Among the many adware programs some go as far as to prevent the installation of Service Pack 2. Some examples are Memory Meter or Speed Blaster from Total Velocity, also known as T.V. Media.

For more details and a removal tool please read the following Microsoft Knowledge Base article.

Adware T.V. Media Program Removal Tool
<http://support.microsoft.com/?kbid=886590>

Clean boot

If the installer keeps complaining about files in use or mysterious access problems, try the following two approaches.

1. Try to install Service Pack 2 in safe mode.
2. Try to install Service Pack 2 after a clean boot.

The information on clean booting is contained in the following Microsoft Knowledge Base article.

How to perform a clean boot in Windows XP
<http://support.microsoft.com/?kbid=310353>

If all else fails

In some cases there may be no other choice but to remove Service Pack 2 again. Read the chapter [Read this first](#) above for procedures.

Boot or shutdown problems after Service Pack 2 installation

Reboot loop

If your computer is set to reboot automatically after a blue screen crash, you may never get to see the blue screen. In that case press F8 after the BIOS boot phase, when Windows begins to boot from the hard disk. You may have to press F8 a few times to hit the right time.

Then select the choice (new with Service Pack 2): Disable automatic restart on system failure.

Intel P4 Prescott, Celeron D, or Extreme Edition processor

Processors based on the Prescott design with a C-0 processor stepping are affected when the motherboard BIOS is out of date. The cause appears to be that the machine's BIOS does not install a production level microcode update (a correction to a fault in the microprocessor's own microcode).

A BIOS update is the best solution, but Microsoft has also released a fix, which can be downloaded from:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=9b99c199-5d75-454f-ae07-b620727be8d8>

Background: The update replaces the SP2 file update.sys, version 5.1.2600.2180, with a new version 5.1.2600.2508 that works correctly on the affected CPUs.

Try to boot into safe mode or disable both L1 and L2 caches in the BIOS to get the machine to boot, then uninstall Service Pack 2, then wait for and obtain an updated BIOS or install the fix. If you cannot get Windows XP to boot at all and cannot get an updated BIOS in time, you may have to do a repair installation of Windows XP.

Another workaround is known, thanks to my fellow MVP Cari at www.coribright.com.

To check whether the BIOS is at the correct level download the Intel Processor Frequency ID utility from <http://support.intel.com/support/processors/tools/frequencyid/>. The microcode version is identified by this utility as "CPU Revision".

Family 15 (0xF), model 3, stepping 4 – must have a microcode update signature of at least 8. Latest microcode update signature is E.

Family 15 (0xF), model 3, stepping 3 – must have a microcode update signature of at least 7. Latest microcode update signature is B.

Family 15 (0xF), model 3, stepping 2 – must have a microcode update signature of at least 7. Latest microcode update signature is A.

If the revision number is lower than that or zero, boot into Safe Mode by pressing F8 after the BIOS boot sequence, then selecting Safe Mode from the menu.

Some affected motherboards

Abit IS7-V
Albatron PX865 PE Pro
Aopen AX4SG Max
Aopen EA65
Asus P4P800 Deluxe
Asus P4P800-E Deluxe
(requires BIOS version 1017)
Asus Terminator T2-P
Foxconn 865A01-G-6EKRS
Gigabyte GA-8PENXP
(requires BIOS version FF)
Jetway i875P
Shuttle SB61G2
Soyo P4I865P

Now follow the procedure described in the following Microsoft Knowledge Base article. It has been reported that this procedure may have to be performed after installing Service Pack 2, not before as indicated in at least one of the MS documents.

Your computer stops responding when you restart to complete the installation of Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=885626>

Data Execution Prevention prevents complete booting or shutting down

The new DEP (Data Execution Prevention) technology (see [special chapter on DEP below](#) for background information) can cause a blue screen stop error with incompatible drivers. If your computer runs on an AMD Athlon 64, AMD Sempron (mobile), AMD Opteron, or Intel Itanium processor, you may want to disable hardware DEP for a test.

To disable DEP, you have to make a change to the BOOT.INI file in the root of the partition from which the computer boots. To get Windows to run, your only choice is now safe mode. To boot into safe mode, press F8 a few times after the BIOS has finished its booting and Windows begins to load. Once you have booted into safe mode, use these steps:

- Right-click on My Computer and select Properties.
- Click on the Advanced tab.
- Click on the third button—settings for system start options.
- Click on the Edit button to edit the boot.ini file.
- Carefully edit the /NoExecute=OptIn string and change it to AlwaysOff. This part at the end of the line should now read: /NoExecute=AlwaysOff
- Save and close the dialog boxes by clicking on OK.

Now reboot and try to get it booted in normal mode again.

If the computer does not even run in safe mode, this probably means that you have a different problem. If you want to try this one nonetheless, either move the hard disk into another computer or try to use the repair console (boot from the Windows XP installation CD and choose the repair console). You can then use the following commands. The BOOT.INI file is write-protected, so you have to remove the read-only attribute first:

- ATTRIB -S -H -R C:\BOOT.INI
- NOTEPAD BOOT.INI
- Carefully edit the /NoExecute=OptIn string and change OptIn to AlwaysOff. This part at the end of the line should now read: /NoExecute=AlwaysOff
- Close the editor and resave the BOOT.INI file back to where it was.
- ATTRIB +S +H +R C:\BOOT.INI

If you use the repair console, you may have to copy BOOT.INI to a diskette, change it on another computer, then copy it back in place.

The second ATTRIB command is not required for booting. It is only a protection measure, which you can also perform later, when you have Windows up and running again.

Be careful not to change any other parts of the boot.ini file, because a mistake can render your computer entirely unbootable.

If anybody finds this to work, I'd be very grateful for an [email](#). Even if you tried it, and it didn't work, please write me briefly. [7 confirmations and 1 denial received in 2005.]

Of course you should now look for updated drivers, install these whenever they appear, and then test the driver by reenabling DEP.

To change this setting back, for example, to test a new driver, you can follow the same procedure again.

- Right-click on My Computer and select Properties.
- Click on the Advanced tab.
- Click on the third button—settings for system start options.
- Click on the Edit button to edit the boot.ini file.
- Carefully edit the /NoExecute=AlwaysOff string and change it back to OptIn. This part at the end of the line should now read: /NoExecute=OptIn
- Save and close the dialog boxes by clicking on OK.

A potential workaround, also unverified and untested, could be to set the IDE channel to PIO mode for a test, because there are some indications that a DMA driver is involved in this problem. This test could reveal that it is indeed a DMA driver problem.

See also the following Microsoft Knowledge Base article.

Your computer repeatedly restarts after you install Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=878474>

From selected emails:

I have an AMD64 laptop and this fix worked great, it now shuts down rapidly, and doesn't hang. The only glitch I found was that it did crash (data dump) the first time I rebooted, but hasn't done so since.

Had problems with windows explorer crashing after SP2 installation which meant I could not turn off DEP. Your method worked a treat. Thanks

I put together a new computer for a friend of mine consisting of a MSI K8M Neo-V mainboard and a Sapphire Raden 9550 graphics card. That's it. After installing XP SP2 and motherboard drivers through a utility provided by MSI that downloads the latest drivers from the web as well as ATI drivers I started getting bluescreens. While testing trying to figure out what was going on, I got a few more bluescreens, and one of them caused data corruption so I had to reinstall. I tried removing the ATI drivers as well as the audio drivers, but to no avail. ...

After adding the /NoExecute=AlwaysOff switch in boot.ini the computer was dead stable.

i'm an experienced technician working with an asus k8v deluxe and have put about 5 or 6 hours into figuring this one out over the past 2 days. finally found your site and attempted disabling DEP in boot.ini and the system booted right up. thanks for the information, much appreciated.

Many thanks for the effective advise on the blue screen problem I had with my AMD 64 desktop machine. Changing the Boot.ini as you discribed worked excellent.

Hangs after reboot, keeps rebooting endlessly, or does not shut down

These can be caused by incompatible drivers or firmware for some devices or by an outdated BIOS.

Nero Burning Rom should be updated to a version of 2004-09 or later. Earlier versions were incompatible with Service Pack 2.

A4Tech USB mice were incompatible with Service Pack 2 in August 2004. Contact A4Tech for an updated driver. Meanwhile you can try to use the mouse through the accompanying USB to PS2 adapter if your computer also has a PS2 mouse port. If not, follow the advice of Pedro Silva, who wrote that he could boot when the mouse was not plugged in. He thus updated the mouse driver without using the mouse. With the updated drivers the problem was gone.

Often the boot process hangs after the driver AGP440.sys, Mup.sys, or some other driver, often a graphics driver, has been loaded. You can check this by booting into safe mode.

The last driver displayed may or may not be the one causing trouble. It could be the next one, if the computer halts before its name is displayed.

To test whether the video driver is the cause, uninstall it entirely and hope that Windows installs a working, if older driver. Make a note of the name of the driver and check whether it changes.

If you cannot even boot in safe mode, try to boot in Standard VGA mode.

If you cannot boot the computer at all, you have a few choices to try to rename the offending driver, then try to boot normally.

- Boot from the Windows XP install CD, select the Recovery Console.
- Boot into a second Windows XP installation.
- Use a third party tool to access the hard disk.
- Temporarily install the hard disk in another computer.

Alternatively, do a repair installation with a full retail Windows XP installation CD, which should overwrite most of Service Pack 2. See chapter [Read this first](#) at the top for details.

In the worst case you may have to remove the video adapter and replace it with another one.

Check the manufacturer's web site for a newer driver or newer firmware for the graphics adapter.

In case the video adapter or driver is not the cause, check your motherboard BIOS version and load the latest BIOS. If that's not it, check the manufacturer's web site for other special drivers, particularly hard disk controller drivers for RAID or SATA drives. Check for a fresh update and install that.

If all this doesn't help, you can try to find out or guess which driver it is, then try to substitute the old driver (the one used before SP2) for the new one that came with SP2.

USB, Firewire

Some problems have been seen on some computers with certain USB devices or Firewire disks attached. Try to disconnect these devices for testing.

One manufacturer, LaCie, has already issued a firmware upgrade for some Firewire storage devices. Other manufacturers, if affected, will follow suit.

xp-AntiSpy

If you ever installed xp-AntiSpy, it disables two DLLs Windows XP SP2 needs. To re-enable these DLLs, click on Start, Run and enter:

```
regsvr32 licdll.dll
```

Then repeat the procedure with this line:

```
regsvr32 regwizc.dll
```

There is no harm in doing this, even if xp-AntiSpy is no longer installed or had never been installed.

Other Blue Screen of Death workarounds

Other possible workarounds are to remove all plug-in hardware, particularly network adapters, which often cause a BAD_POOL_HEADER blue screen of death. If that's not enough, you may have to use the recovery console to disable their drivers or any potentially offending drivers. If that's still not enough, begin to disable services, beginning with the indexing service.

General Blue Screen of Death information

IRQ_NOT_LESS_OR_EQUAL STOP: 0x0000000A can be caused by Nero InCD 4300. A side effect is that, very strangely, you cannot boot in safe mode, but you can boot in normal mode. You can try to update InCD to the latest version. There are conflicting reports about version 4303. If you keep

having the problem, uninstall the program altogether.

If the computer crashes with a blue error screen, you have a driver or hardware defect. There is a good chance that the offending driver is indicated on the blue screen. Check the following article.

Demystifying the 'Blue Screen of Death'

<http://www.microsoft.com/technet/prodtechnol/winntas/tips/techrep/bsod.mspx>

If your computer is set to automatically reboot after unrecoverable errors, you may have to hit F8 during boot-up to actually get to see the blue screen. There is an option in the advanced menu to suppress automatic rebooting once.

The F8 key might need to be pressed twice, once for the operating system selection list, and once more to switch to the advanced options menu. Both these menus are different from the "Windows failed to start last time" menu.

If that doesn't work, you have a better chance by doing a repair installation with a slipstream version, i.e. an installation CD containing Windows XP with Service Pack 2 already included. See [Read this first](#) above for details.

Slow booting

If your computer takes a very much longer time to boot after you installed Service Pack 2, one possibility is that one of the startup programs causes this.

To find out which it is, click on Start, Run, type in MSCONFIG, and press return. Click on the Startup tab, disable all programs, and reboot.

If the computer now boots very quickly, re-enable groups of programs and later single programs at a time, reboot and check the boot time. If you could identify the offending program this way, try to obtain a newer version that is compatible with Service Pack 2, leave the program disabled for now, or uninstall it altogether.

If disabling all of these programs does not solve the slow boot problem, the cause could be a service or an integral component of Windows itself. Some services can be disabled for a test, others cannot. A last resort would be a repair installation of Windows XP, followed by applying Service Pack 2 once more.

If all else fails

You may currently have no other choice but to remove Service Pack 2 again. Read the chapter [Read this first](#) above for procedures.

The Service Pack 2 firewall

General

Thanks to my fellow MVP Kai Schätzl for his contribution of most of the information on the SP2 firewall and subsequent improvement of the text.

Domain or workgroup

The firewall has two separate profiles. One is automatically activated when you're in a domain, the other when you're in a workgroup. Domain settings have no effect when you're in a workgroup and vice versa. So if you change between domain and workgroup, you have to set up your firewall twice.

Firewall blocks LAN connection

The new firewall blocks file and printer sharing and pinging by default. To allow this again, open the Windows Firewall settings in Control Panel. Use the Exceptions tab and check the File and Printer Sharing entry, which should now, by default, be set only for the local subnet, i.e. your LAN on the near side of any routers. This also reenables ping responses and allows the browser service to start. Reboot to allow the service to start or start the service by hand.

If you want only ping responses without file and printer sharing, click on the Advanced tab, then the ICMP Settings button. Check "Allow incoming echo request".

If, however, you need full and free communications for any type of connection, then use the third tab, Advanced, and remove the check mark from your LAN (Local Area Network) interface to allow full local connectivity for all types of traffic. This is obviously more risky and usually not necessary. Don't do it unless you are certain that all other local computers can never pose a danger. Consider that every laptop or guest computer brought into the LAN can bring a virus along.

The better alternative is to leave the firewall enabled even for the LAN interface, i.e. for your local area network, and open only the services that are actually needed, i.e. any server functions the computer may have. Here you also have the choice to open these server functions only for the local subnet. You can also allow the first ICMP function (echo, ping) or all of them.

Firewall blocks LPR printing

When you try to print to an LPR printer, the print job fails without any further error message. The printer doesn't react at all, no lights flash.

The LPR protocol uses TCP Port 515, which is, by default, blocked by the firewall. You can test where it is, in fact, the firewall by briefly disabling it, but do this only if you have no direct, unprotected Internet connection.

Add an exception for TCP port 515 in the firewall. You can name it LPR. Enable it only for the local subnet, unless the printer is outside.

[Thanks to John Faughnan.]

Do not disable the firewall service

Do not disable the firewall service, unless you have a very good reason to do so. For example, without the firewall service running, the computer browser service will not work properly.

Internet Explorer and ftp problems

Configure Internet Explorer to use passive ftp (to use PASV commands instead of PORT commands) according to the following Microsoft Knowledge Base article, which is valid also for Windows XP. Passive ftp is always recommended if the ftp server can handle it.

How To Configure Internet Explorer to Use Both the FTP PORT Mode and the FTP PASV Mode
<http://support.microsoft.com/?kbid=323446>

Firewall asks to unblock a program

A more precise description is, the firewall automatically blocks a program and asks the user if he wishes to unblock that program.

The Service Pack 2 firewall asks to unblock programs when a program tries to open a listening port, even though you already disabled the firewall on the currently active interface. This can

happen, for example, when you use Frontpage for the first time with the service pack to upload a web site via ftp.

The reason is that this is a separate function of the firewall, which is independent of the interface used and of the associated settings. In other words, disabling the firewall in the Advanced settings for an interface does not override the exceptions. Unfortunately the firewall's dialogs do not indicate this at all, so the author of this article may not be the only one who first thought that the firewall is defective and switched it off.

Don't try to prevent these messages by disabling the firewall altogether. This would be overkill. It is not necessary and not recommended, because you really want this bit of security. Also, disabling the firewall would only postpone the questions until you need the firewall for a different interface. The advantage of this function is that it draws your attention to bad software that tries to communicate clandestinely from your computer.

You have to make a decision every time any program causes such a firewall message. If you know the program and deem it safe and worthy of listening and accepting incoming traffic, you can allow it to be unblocked. If, however, an unknown program causes an unblocking question, you should try to find out what program this is, what it does, and whether this is desired.

Fortunately the number of these requests is usually not high. The firewall asks only once for each program that tries to open a listening port.

Note that, unlike some more sophisticated software firewalls, the Windows XP SP2 firewall does not check the program for virus infection or replacement. The firewall only remembers the name and path of the program file and allows it to communicate freely, if you so decide. However, this still provides a fair first line of defense.

Firewall disabled, how do I get rid of the warning?

If you are sure you want to have the Windows XP SP2 firewall disabled permanently, for example because have a third party firewall running, disable it in the firewall settings first (Control Panel, Windows Firewall).

Then go into Control Panel, Security Center and click on the firewall Recommendations button. Answer the question in the next dialog box to get rid of the warnings.

Background information

The firewall blocks all incoming traffic, unless

1. the connection is in response to another outgoing connection (stateful inspection, this covers most incoming connections),
2. there is an exception for the listening destination port,
3. an unblocked program listens at the destination port.

The list of unblocked programs is shown on the second firewall tab (Exceptions). It is stored in the following registry key.

```
HKEY_LOCAL_MACHINE
\SYSTEM
\CurrentControlSet
\Services
\SharedAccess
\Parameters
\FirewallPolicy
\StandardProfile
\AuthorizedApplications
\List
```


Further exceptions can be made either globally or for specific interfaces. All these settings, wherever they are, are exceptions to the default no-access rule.

The general exceptions apply to all interfaces (except that the scope-rules for the exception might in practice mean that there remains no access from some interfaces).

The settings for the individual interfaces can add exceptions for that interface only, but cannot close an exception opened by the general settings. In other words, as long as there is a general exception, any additional interface-specific exception for the same kind of traffic is unnecessary, but does not hurt either.

You can also download and read the following Microsoft white paper.

Troubleshooting Windows Firewall in Microsoft Windows XP Service Pack 2
<http://www.microsoft.com/downloads/details.aspx?familyid=a7628646-131d-4617-bf68-f0532d8db131>

Networking problems after installing Service Pack 2

Use the Network Troubleshooter

If perusing the points below doesn't quickly lead to a solution, use the [Network Troubleshooter](#) page, which offers efficient, form-based solution finding.

Problem may not be related to Service Pack 2

If the problem you experience has been there before installing Service Pack 2 or if you never tried the desired function before the Service Pack 2 installation, it may not be related to the Service Pack at all. Check the [Network Troubleshooter](#).

Problem may be related to the new firewall

Check the [chapter on the new firewall](#) first.

Service Pack 2 not properly installed

If you got Service Pack 2 through AutoUpdate or through the windowsupdate.microsoft.com web site, there is the suspicion that it was not complete. Download the full service pack (some 270 MB) or have it sent to you on a CD, then apply it again. This has solved some network connectivity problems.

Lost control over ICS

If you can no longer control ICS (Internet Connection Sharing) from the client computers, a possible cause is that UPnP (Universal Plug-n-Play) no longer works. To rectify this, activate the UPnP exception in the firewall. If you're not sure how to do this, open Help and Support and read "To enable UPnP network functionality". To find this topic quickly, you can search the Help and Support Center for UPnP.

Dial-up connections or Remote Access Connection Manager problems

The following Microsoft Knowledge Base article refers to a similar problem with Service Pack 1 and may still apply.

You cannot create a network connection after you restore Windows XP

<http://support.microsoft.com/?kbid=329441>

Limited or no connectivity warning

If you see a "limited or no connectivity" warning and a yellow exclamation mark in Device Manager, this only means that the computer's network port is set to automatically obtain an IP address through DHCP (Dynamic Host Configuration Protocol), but a DHCP server could not be found. Windows then generates an APIPA address in the 169.254.x.y range (see chapter APIPA Addresses in [Private IP Addresses](#)). This means that all computers in the LAN (Local Area Network) can communicate with each other, if the others also gave themselves APIPA addresses.

It does not necessarily mean that there is anything wrong, but if you don't want to see this message any more, right-click on the LAN connection, select Properties, and remove the check mark for "Notify me when this connection has limited or no connectivity".

Whether you can have Internet access depends on the kind of Internet connection. If you use a dial-out connection (including PPPoE and similar), this computer can have Internet access.

If you swapped your network adapter and have a DHCP server in some other device like a cable modem or router that worked before you installed Service Pack 2, switch its power off, wait 5 seconds, then switch it on again. Then reboot your computer. The background is that some cable modems or similar devices recognize the connected adapters (or their MAC addresses) only once when powering up.

"Connect as" and the Guest account

If you want the "Connect as" dialog to appear, disable the Guest account on the target computer, i.e. the server, the computer on which the objects are that you want to access. If you don't, enable the Guest account. A quick way to enable Guest network access is to type the following command at a command prompt:

```
net user guest /active:yes
```

Background information: As long as the Guest account is enabled on both computers, attempts to log on with unmatched, wrong credentials will end up using the Guest account. This, of course, requires that Guest has enough rights to the share and to the shared objects.

IP address 169.254...—Winsock corruption

If the computer cannot obtain an IP address from a DHCP (Dynamic Host Configuration Protocol) server, like a router using NAT (Network Address Translation), Windows will automatically assign an APIPA (Automatic Private IP Address) in the range:

Class B: 169.254.0.0 - 169.254.255.255
(Subnet mask: 255.255.0.0)

One likely cause is Winsock corruption, caused by adware or a virus.

A possibly useful new command comes with Service Pack 2, which can repair winsock problems. It may help when otherwise unsolvable or connection problems or spurious disconnections occur. It removes all nonstandard LSP (Layered Service Provider) entries from the Winsock catalog, which are often the dreaded adware or spyware entries.

However, if you happened to have a legitimate LSP installed (for example, Palm HotSync Manager), it would also be removed and would have to be reinstalled. In that case you have to reinstall the affected software.

If you want to check the Winsock before repairing it, you can use the command:

```
winmsd
```

and select Components, Network, Protocol. The Layered Service Providers in the list should be of the MSAFD or RSVP service provider type. All others are often malevolent and should disappear after the reset command shown above. You can do this before and after resetting the catalog to find out whether any entries were in fact removed and which ones these were.

Another way to get at the same information is the command:

```
netsh winsock show catalog | more
```

The new command to repair the Winsock is:

```
netsh winsock reset
```

Reset the IP stack

If this is not enough, you can reset the entire IP stack with the command:

```
netsh int ip reset c:\resetlog.txt
```

where you can replace c:\resetlog.txt with a path and filename of your choice, to get a log file of the process. If the path contains a space, add double quotes. Example (type all in one line):

```
netsh int ip reset "C:\Documents and Settings\Administrator\My  
Documents\resetlog.txt"
```

One known cause for such problems is a Cisco VPN client.

Please let me know by [email](#) which of these procedures worked for you.

Workgroup is not accessible

Please read the [relevant chapter in the Networking Problem Solver page](#).

Network connections missing

Possible symptoms:

- The LAN or High-Speed Internet connection icon is missing.
- The Dial-up Connection icons are missing.
- The New Connection Wizard icon is missing.
- Only the New Connection Wizard icon appears, or one or more dial-up connections also appear.
- If you click the Advanced menu and then click Advanced Settings, only the [Remote Access connections] entry appears in the Connections list.
- The Network Connections window stops responding ("hangs") or closes immediately after you select a network connection and then click Properties.

Despite these issues, networking continues to function correctly, and the ipconfig command still shows all connection and all adapter information.

In any of these cases please read the following Microsoft Knowledge Base article.

How to troubleshoot missing network connections icons in Windows Server 2003 and in Windows XP

<http://support.microsoft.com/?kbid=825826>

Browser service cannot be started

The browser service will not start unless you have, in the firewall, enabled the exception for File and Printer Sharing.

Internet Explorer warns when opening local files

Service Pack 2 tightens the security settings that relate to executing active content in local files in Internet Explorer.

To loosen these security settings again, open Internet Explorer and select Tools, Internet Options, Advanced, then scroll down to Security. Activate the following two settings:

- Allow Active content to run files on my computer
- Allow Active content from CDs

Error 0xC0000135 winsrv was not found

Read the following Microsoft Knowledge Base article.

You receive a "Stop: c0000135" and "winsrv was not found" error message after you install Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=885523>

Driver update

Go to the web site of the manufacturer of your hardware and download the latest driver. Several manufacturers have updated their drivers particularly after Windows XP Service Pack 2, i.e. around 2004-09. This is especially important for wireless network adapters.

If you just installed Service Pack 2 or a later service pack and have the problem since then, try also to uninstall the network adapter driver, reboot, then let Windows (PnP) redetect and reinstall the driver even if there is no newer one. Then check and, if necessary, set up the connection.

Router or base station firmware

Update the firmware on your router to the latest version, particularly if your current version is older than 2004-09. Quite a few older firmware versions are incompatible with Wireless Zero Configuration, for example.

Third party configuration software

If the manufacturer of your hardware has you install network configuration software, this may interfere with Windows XP's own configuration function, particularly Wireless Zero Configuration, may change settings, etc.

Uninstall the third party software. Reboot. If the software is still running, run msconfig, select Startup and uncheck any line that starts such software, then reboot again.

SSL problems

If you have a particular problem with https://... pages, please see the following Microsoft Knowledge Base article.

How to troubleshoot problems accessing secure Web pages with Internet Explorer 6 Service Pack 2
<http://support.microsoft.com/?kbid=870700>

FTP folder error

In Internet Explorer:

- Click on: Tools
- Click on: Internet options
- Click on: Advanced tab
- Put a check mark next to: Use Passive FTP
- Put a check mark next to: Enable Folder View of FTP sites

If this does not solve the problem, check whether there is a general problem with the Internet connection. Try to ping the server, etc.

VPN connection stops working

Service Pack 2 changes the default behavior in a way that makes VPN connections through NAT (Network Address Translation) traversal (NAT-T), i.e. through routers employing NAT, impossible.

To read about the details and to learn how to change the behavior back to the pre-SP2 state, please read the following Microsoft Knowledge Base article.

The default behavior of IPSec NAT traversal (NAT-T) is changed in Windows XP Service Pack 2
<http://support.microsoft.com/?kbid=885407>

IIS stops responding

Please read the following Microsoft Knowledge Base article.

IIS Stops Responding After You Apply Updates
<http://support.microsoft.com/?kbid=328512>

SQL Server accessibility

The firewall blocks SQL Server access by default. You have to open several ports to be able to use SQL Server. Please check the following Microsoft Knowledge Base article.

How to enable SQL Server connectivity on Windows XP Service Pack 2
<http://support.microsoft.com/?kbid=841251>

Other networking problems

Simple actions are to disable the firewall for a brief test (don't do this while connected to the Internet, unless you have another firewall between you and the Internet) and to repair the connection. If this is not enough, use the [Network Troubleshooter](#).

Lost other functionality

Some virus checkers can interfere, so disable your virus checker for now.

Make sure all required services are running. Check particularly the Internet Connection Firewall (ICF), the Internet Connection Sharing (ICS), and the Computer Browser services, which should be set to Automatic and be Started. You can find these in Computer Administration, Services.

If the Browser service does not run, the most likely cause is that the firewall is enabled (good) and is blocking the File and Printer Sharing, which blocks the browser NetBIOS ports, so the browser service does not start (bad). Enable the File and Printer Sharing exception, then reboot or manually start the browser service. More details are in the following Microsoft Knowledge Base article:

The Computer Browser service does not start and event ID 7024 is logged when you restart your Windows XP Service Pack 2-based computer

<http://support.microsoft.com/?kbid=875362>

Read the next chapter, particularly the subchapter "If all else fails".

NET SEND messages no longer received

First enable the File and Printer Sharing exception in the firewall.

Service Pack 2 also disables the Messenger service.

Go to Control Panel, Admin Tools, Services, double-click on the Messenger service, set its start type to Automatic, so it gets started automatically the next time you boot, and also start it immediately if you want it right now in your current session already.

Computer does not work properly with Service Pack 2

Problem may not be related to Service Pack 2

If the problem you experience has been there before installing Service Pack 2 or if you never tried the desired function before the Service Pack 2 installation, it may not be related to the Service Pack at all. Check for [other causes](#).

Monitor picture position or size changed

Service Pack 2 may have updated or swapped your graphics adapter driver or reset parameters. There are three ways to proceed.

- Correct the mispositioning with the controls on the monitor.
- Change the screen parameters. Right click on the desktop background, select Properties, select the Settings tab and click on the Advanced button. In the "Default Monitor ... Properties" window select the Monitor tab and check the refresh rate. Normally you don't want 60 Hz here, as this flickers. Ideally you want at least 80 Hz. But you may first experiment with different rates to find what your monitor works best with.
- Reinstall the matching graphics adapter driver. It is best to download the latest one from the manufacturer's web site and use that. You can delete the graphics adapter in Device Manager, reboot and let the system detect the graphics adapter, then offer the downloaded driver.

Device does not work properly with Service Pack 2

If the problem reoccurs and if it is related to some device, check the web site of the device's manufacturer for the latest version of its driver or configuration software and upgrade the software on your computer. If there are no overriding objections, uninstall the old version completely, then install the new version.

In fact, in some cases uninstalling and reinstalling the original software already solves the problem, but while you're at it, why not get the latest?

Brian Carnahan reported that Blue Screen Stop Errors (0x00000035 and 0x00000019) when inserting USB 2 Pen Memory modules could be cured by uninstalling Symantec Ghost Console Client. Other reports indicate that Norton/Symantec and McAfee products cause problems, so it's a

fair bet to uninstall these at least for a test.

Explorer freezes or crashes when right-clicking a file

A possible error message is: Explorer has performed an illegal operation

If you have Dr. DivX installed, upgrade to at least version 1.06 or uninstall it entirely. The file encodedivxext.dll is the culprit in this case.

Generally the cause is third party software that installs an incompatible codec or Explorer extension, so look particularly for software that plays, extracts, compresses, or writes multimedia content like sound or video.

Pictures and local HTML errors

Please check the following Microsoft Knowledge Base article.

Pictures do not appear as expected, or you receive an error message when you open an HTML file on a Windows XP Service Pack 2-based computer

<http://support.microsoft.com/?kbid=878461>

Internet Explorer stops responding or crashes

When you view a Web page in Microsoft Internet Explorer 6.0, Internet Explorer stops responding or crashes, and you receive an access violation in Vgx.dll. This problem occurs if the Web page renders vector graphics on the screen and if your computer is running Microsoft Windows XP Service Pack 2 (SP2). More details can be found in the following Microsoft Knowledge Base article.

Internet Explorer stops responding or crashes, and you receive an access violation in Vgx.dll, when you view a Web page in Internet Explorer 6.0

<http://support.microsoft.com/?kbid=885932>

To solve this problem, download and install the following post-SP2 hotfix.

Update for Internet Explorer 6 for XP Service Pack 2 (KB885932)

<http://www.microsoft.com/downloads/details.aspx?FamilyID=5437f94d-899f-425c-b2a4-893ba3a16d71>

Cannot update—installer stops responding

The following update helps resolve an issue where Windows Installer running on Windows XP Service Pack 2 stops responding when you install an update.

Update for Windows XP Service Pack 2 (KB885894)

<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=36dd19df-bc5e-44b7-a339-6794d97994a2>

Firewire has reduced performance

Please read the following Microsoft Knowledge Base article.

Performance of 1394 devices may decrease after you install Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=885222>

If all else fails

Some virus checkers can interfere, so disable your virus checker for now.

You may currently have no other choice but to remove Service Pack 2 again. Read the chapter

[Read this first](#) above for procedures.

Programs stop working or behave differently with Service Pack 2

General information

Check the following Microsoft Knowledge Base article, which contains a list of programs with known issues.

Some programs seem to stop working after you install Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=842242>

Programs that may behave differently in Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=884130>

Of course these lists are not complete. Newer and other programs may also have problems, although they don't appear in the list. It is also possible that the list offers a fix or a workaround that is not complete and doesn't solve all problems.

Some programs with known problems are:

- Symantec/Norton Ghost 9.0
- Symantec/Norton Antivirus 2005 (More precisely, Norton Internet Worm Protection in NAV 2005 conflicts with the Windows XP SP2 Firewall.)

All loopback addresses except 127.0.0.1 don't work with Service Pack 2. This may break SSL Gateways, Samba authentication, SSH port forwarding using these IP addresses, etc. The problem is described in the following Microsoft Knowledge Base article.

Programs that connect to IP addresses that are in the loopback address range may not work as you expect in Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=884020>

Microsoft has issued a hotfix that solves this problem:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=17d997d2-5034-4bbb-b74d-ad8430a1f7c8>

HP LanScan – Scanner not found

Introduction

[Francesco Corfiati, who keeps up the [Italian version](#) of this web page, forwarded the following information from MVP Patrick Philippot.]

The HP LanScan software that allows you to scan remotely from a LAN workstation fails with a "scanner not found" message after you install Windows XP Service Pack 2 on the host machine (the one connected to the scanner).

Windows XP SP2 puts severe limitations on DCOM/RPC protocols by default. In order to get HP LanScan working again, you have to release these restrictions.

Here's what you can do to fix this (worked for me):

Foreword

- Note that these steps disable some DCOM / RPC restrictions globally. I repeat, these steps

will release some security settings enforced by Windows XP SP2. If you are unsure, please refrain from proceeding any further and ask your admin or wait until HP provide an update or instructions for fixing the problem. If you are not familiar with the registry editor and /or with the system administration console, please ask for assistance in your neighborhood.

- A better approach would be to release these restrictions only for the COM components used by LanScan. However, until HP wake up, I don't know exactly which components are involved. So I'm using global settings that may also help a few other DCOM applications to work correctly after installation of the XP SP2. You need to be a system admin to follow these steps.
- If you want detailed explanations about the DCOM / RPC restrictions in XP SP2, please read this document: <http://www.microsoft.com/downloads/details.aspx?FamilyId=9300BECF-2DEE-4772-ADD9-AD0EAF89C4A7&displaylang=en>
- These steps do not include any discussion about the Windows Firewall because we didn't activate it on our systems. If the Windows XP Firewall is enabled on your systems, you might have to take additional steps also explained in the document above ("Windows Firewall" section).

Step by step procedure

NB: Not all following steps may be absolutely necessary. But I had no time left to test all the possible combinations.

In some cases, just changing/creating the registry value mentioned in step #11 may be enough, especially if you work in Workgroup mode. So I suggest you try this first. Credits: Randy Hands.

Here we go ... All changes apply to the "host" machine only (the one connected to the scanner).

1. On the XP SP2 Host, click on Start | Run and enter "dcomcnfg". This opens the Component Services console.
2. Expand Component Services | Computers and right-click My Computer. Select Properties | Com Security.
3. For both "Access permissions" and "Launch and Activation permissions", click the "Edit limits" and "Edit default" buttons and give full permissions to all users who have to access HP LanScan and more generally DCOM components (this will vary with your configuration and your LAN—if you don't know, ask your Admin). If all domain users need access to the scanner, give permissions to "Authenticated Users". Note that SYSTEM may not have remote access permission by default. Give it this permission.
4. Click OK and close the console.
5. Now click on Start | Run and enter "gpedit.msc". This opens the Group Policy console.
6. Go to Computer Configuration | Windows Settings | Security Settings | Local Policies | Security Options.
7. In the right pane, double-click "DCOM: Machine access restrictions ..." . Check "Enable policy", click "Edit security" and give full permissions to the same users as above.
8. Do the same for "DCOM: Machine launch restrictions ...".
9. Close the console.
10. If you log on to a domain, you may have to repeat the same steps for the "Default Domain Policy" (see Start | Programs | Administrative tools).
11. Open the registry editor, go to HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\Windows NT\Rpc, create a DWORD value named RestrictRemoteClients and leave the default value unchanged (0).
12. Reboot your system. You don't need to do anything on the client systems, whether or not they are running XP SP2.

Data Execution Prevention (DEP)

Service pack 2 contains a new security technology that prevents the execution of data as a

program. The purpose is to make it impossible for malware like viruses and Trojans to exploit program errors and other security holes, for example buffer overflows.

Not all processors support hardware DEP. Currently only the AMD Athlon 64, AMD Sempron (mobile), AMD Opteron, and the Intel Itanium server processor support it. But at least for some Windows components there is a software implementation of DEP that can be enabled on all computers running Service Pack 2.

End users who are logged on as administrators can manually configure DEP between the OptIn and OptOut policies using the Data Execution Prevention tab inside the System Properties dialog box. The following procedure describes how to manually configure DEP on the computer:

1. Click Start, click Control Panel, and then double-click System.
2. Click the Advanced tab. Then, under Performance, click Settings.
3. Click the Data Execution Prevention tab.
4. Click Turn off hardware DEP (software DEP enabled) to select the Opt-in policy.
5. Click Hardware and software DEP enabled for all programs except to select the OptOut policy.
6. Click Add and add the applications that you do not want to use DEP with.

If you cannot boot or if DEP itself prevents you from using the dialog described above or if you want to disable DEP entirely, please read the chapter [Boot or shutdown problems after Service Pack 2 installation](#) above, subchapter "Data Execution Prevention prevents complete booting or shutting down".

For a more detailed discussion of DEP, please read the following TechNet articles.

Changes to Functionality in Microsoft Windows XP Service Pack 2

Part 3: Memory Protection Technologies

<http://www.microsoft.com/technet/prodtechnol/winxppro/maintain/sp2mempr.mspx>

Detailed description of the data execution prevention feature in Windows XP SP2

<http://support.microsoft.com/default.aspx?scid=kb;en-us;875352>

Removing the uninstall information

Manual removal

If you have Service Pack 2 installed and used for a while and are absolutely sure you never want to uninstall it again, you can free some disk space by removing the uninstall information for other hotfixes that still resides in subfolders of your main Windows folder. They are named something like %windir%\\$NTUninstall...\$, where %windir% stands for the name of your main Windows folder and the ... stands for some other text and possibly a number.

Older %windir%\\$NTUninstall...\$ folders can be deleted. The reason why the Service Pack 2 installation doesn't remove them is that you may want to uninstall SP2 and then uninstall the earlier hotfixes, one by one.

The following folders can be deleted if they predate Service Pack 2, i.e. if they carry dates before August 2004 (or were belatedly installed before installing SP2):

- %windir%\\$xpsp1hfm\$\
- %windir%\\$NtUninstallQ...\$\
- %windir%\\$NtUninstallKB...\$\

Finally, if you are sure you never want to uninstall Service Pack 2, you can delete %windir%\\$NtServicePackUninstall\$.

To remove the uninstall information in Control Panel, Add/Remove Programs, click on each and

choose to uninstall the patch. It will then tell you that the uninstall folder could not be found and offer to remove the patch from the list as well. Do this only for those patches where you have actually deleted the folder and do not accidentally remove any new patches for which you want to keep the uninstall information.

See the subchapters below for details.

UninstallRemover tool

To remove all hotfixes (before and after Service Pack 2), you can also use the following tool, which is more convenient, because it removes the uninstall folders and also the entries from the Add/Remove Programs list. If you have had the hotfixes installed for a while and are sure you never want to uninstall them again, you can use this tool. Like other tools mentioned here, this one was again programmed by my fellow MVP Torgeir Bakken from Norway. Here it is:

[UninstallRemover.vbs](#)

When you approve and run this program, it will present yet another messagebox to allow you to abort the program before it begins to remove your uninstall folders. You still have to remove the uninstall folder for Service Pack 2 by hand, then remove it from the Add/Remove Programs list by attempting to uninstall, then allowing to remove the entry from the list.

Step 1 – Delete the \$NtServicePackUninstall\$ (or similar) folder

Because these files are in a hidden folder, you may have to go into My Computer or Windows Explorer and select Tools, Folder Options. Select the View tab and change the Hidden Files and Folders setting to Show Hidden Files and Folders.

You can now see the \$NtServicePackUninstall\$ folder in the Windows (or WINNT) folder. Delete the folder. You will receive a warning that you're about to delete a hidden folder. Choose Yes.

Because the total file size can be over 100MB, you may receive a message that the files are too large for the Recycle Bin. Choose Yes and delete them anyway.

If you like, you can go back to My Computer or Windows Explorer, Tools and Folder Options, and select the Restore Defaults button to set the option to show hidden files and folders back to the default.

Step 2 – Try to uninstall the service pack or patch in Control Panel, Add/Remove Programs

To remove the uninstall information in Control Panel, Add/Remove Programs, click on each and choose to uninstall the patch. It will then tell you that the uninstall folder could not be found and offer to remove the patch from the list as well. Do this only for those patches where you have actually deleted the folder and do not accidentally remove any new patches that were installed after the service pack.

You will notice that, obviously, uninstalling is no longer possible. But you will be given the option to remove the service pack from the list anyway. Accept that option, say Yes, and the service pack removal entry will be removed.

Link

A similar information can be found in:

Q290402 - How to Remove Service Pack Restore Files and Folders in Windows

<http://support.microsoft.com/?kbid=290402>

New and revised documentation

General

The documentation in this chapter provides links to new Knowledge Base articles as well as new and current information about Windows XP SP2 for the following networking areas:

- Windows Firewall
- Wireless (new UI, WPA inclusion)
- Wireless Provisioning Services (WPS)
- IPv6
- Peer-to-Peer Networking

New Documentation

New Knowledge Base articles

Double-byte character set (DBCS) characters may appear corrupted in Internet Explorer on Windows XP when you browse a Web site that uses Shift-JIS character encoding

<http://support.microsoft.com/?kbid=886677>

Some add-ons are not listed in the Manage Add-ons dialog box in Internet Explorer on your Windows XP Service Pack 2-based computer

<http://support.microsoft.com/?kbid=888240>

Patch download (English) related to the above Knowledge Base article

<http://www.microsoft.com/downloads/details.aspx?FamilyID=d788c59e-b116-4d38-b00c-ff1d529106c8>

Description of the critical update for Windows Firewall "My Network (subnet) only" scoping in Windows XP Service Pack 2

<http://support.microsoft.com/?kbid=886185>

You cannot use Input Method Editor when you use MSN Messenger in Windows XP with Service Pack 2

<http://support.microsoft.com/?kbid=890831>

White papers

Changes to Functionality in Microsoft Windows XP Service Pack 2

<http://www.microsoft.com/downloads/details.aspx?FamilyID=7bd948d7-b791-40b6-8364-685b84158c78>

Deploying Windows Firewall Settings for Microsoft Windows XP with Service Pack 2

<http://www.microsoft.com/downloads/details.aspx?FamilyID=4454e0e1-61fa-447a-bdcd-499f73a637d1>

Using the Windows Firewall INF File in Microsoft Windows XP Service Pack 2 (authored by AaronCu)

<http://www.microsoft.com/downloads/details.aspx?familyid=cb307a1d-2f97-4e63-a581-bf25685b4c43>

Troubleshooting Windows Firewall in Microsoft Windows XP Service Pack 2

<http://www.microsoft.com/downloads/details.aspx?familyid=a7628646-131d-4617-bf68-f0532d8db131>

TechNet Cable Guy articles

August 2004 - Wireless LAN Enhancements in Windows XP Service Pack 2

June 2004 - The New Wireless Network Setup Wizard in Windows XP Service Pack 2

May 2004 - Network Determination Behavior for Network-Related Group Policy Settings

February 2004 - Manually Configuring Windows Firewall in Windows XP Service Pack 2

January 2004 - New Networking Features in Microsoft Windows XP Service Pack

Updated Documentation

Major revisions

Windows XP Wireless Deployment Technology and Component Overview

<http://www.microsoft.com/technet/prodtechnol/winxppro/maintain/wificomp.mspx>

Configuring Windows XP IEEE 802.11 Wireless Networks for the Home and Small Business

<http://www.microsoft.com/technet/prodtechnol/winxppro/maintain/wifisoho.mspx>

Minor revisions

Enterprise Deployment of Secure 802.11 Networks Using Microsoft Windows

<http://www.microsoft.com/technet/prodtechnol/winxppro/deploy/ed80211.mspx>

Troubleshooting Windows XP IEEE 802.11 Wireless Access

<http://www.microsoft.com/technet/prodtechnol/winxppro/maintain/wifitrbl.mspx>

IEEE 802.11 Wireless LAN Security with Windows XP

<http://www.microsoft.com/downloads/details.aspx?FamilyID=67fdeb48-74ec-4ee8-a650-334bb8ec38a9>

Ad Hoc Internet Sharing with Microsoft Windows XP

<http://www.microsoft.com/downloads/details.aspx?FamilyID=fac8708e-3762-4e78-b372-8404eeb7f41a>

Obtaining and Installing a VeriSign WLAN Server Certificate for PEAP-MS-CHAP 2 Wireless Authentication

<http://www.microsoft.com/downloads/details.aspx?FamilyID=1971d43c-d2d9-408d-bd97-139afc60996b>

Computer Browsing on SOHO Networks with Microsoft Windows

<http://www.microsoft.com/downloads/details.aspx?FamilyID=bb89501a-3609-45de-8e35-38251e1349f6>

Troubleshooting Computer Browsing on SOHO Networks with Microsoft Windows

<http://www.microsoft.com/downloads/details.aspx?FamilyID=b5a2baba-cc80-4bcf-b1e4-d629028554e4>

IPv6 Transition Technologies

<http://www.microsoft.com/windowsserver2003/techinfo/overview/ipv6coexist.mspx>

Teredo Overview

<http://www.microsoft.com/technet/prodtechnol/winxppro/maintain/teredo.mspx>

Updates to Understanding IPv6

<http://www.microsoft.com/downloads/details.aspx?FamilyID=42bf4711-27af-4c4c-8300-7bcf900de5c3>

Introduction to Windows Peer-to-Peer Networking

<http://www.microsoft.com/technet/prodtechnol/winxppro/deploy/p2pintro.mspx>

Windows XP IPv6 FAQ

<http://www.microsoft.com/technet/prodtechnol/winxppro/plan/faqipv6.mspix>

Windows Server 2003 IPv6 FAQ

<http://www.microsoft.com/windowsserver2003/techinfo/overview/ipv6faq.mspix>

Internet Connection Firewall Feature Overview

<http://www.microsoft.com/technet/prodtechnol/winxppro/plan/icf.mspix>

Troubleshooting Internet Connection Firewall on Microsoft Windows XP

<http://www.microsoft.com/downloads/details.aspx?FamilyID=b3d01193-ad93-492f-b74b-97c2fc44e08b>

Troubleshooting File and Printer Sharing in Microsoft Windows XP

<http://www.microsoft.com/downloads/details.aspx?FamilyID=fd7fd48d-6b4a-448e-a632-076f98a351a2>

Troubleshooting Internet Connection Sharing on Microsoft Windows XP

<http://www.microsoft.com/downloads/details.aspx?FamilyID=1dcff3ce-f50f-4a34-ae67-cac31ccd7bc9>

Home and Small Office Network Topologies

<http://www.microsoft.com/technet/prodtechnol/winxppro/plan/topology.mspix>

Using Group Policy Settings with Windows XP Home Networking Features

<http://www.microsoft.com/technet/prodtechnol/winxppro/deploy/hmnetgp.mspix>

Minor revisions to TechNet Cable Guy articles and pages

<http://www.microsoft.com/technet/community/columns/cableguy/cg0703.mspix>

<http://www.microsoft.com/technet/community/columns/cableguy/cg0403.mspix>

<http://www.microsoft.com/technet/community/columns/cableguy/cg0303.mspix>

<http://www.microsoft.com/technet/community/columns/cableguy/cg1203.mspix>

<http://www.microsoft.com/technet/community/columns/cableguy/cg1103.mspix>

<http://www.microsoft.com/technet/community/columns/cableguy/cgarch.mspix>

Closing remarks

This message is not complete, but will be amended as new information becomes available. There are various other potential causes for problems.

If you could solve your problem, I'd be grateful for a [short reply](#) stating what did it. Likewise when you find any error, mistake, shortcoming, misleading or missing text.

However, please do not send email with support requests to me. Such questions should always go to the one of the public Windows XP newsgroups, for example, [microsoft.public.windowsxp.network_web](#) in case of a networking problem, where others and I will gladly try to answer them.

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